

**REMARKS**

Claims 1-14, 25, 26, and 37 are cancelled. New claim 38 is a method of analysis and/or diagnosis using a surface according to claim 27, as supported by, *e.g.*, page 9 of the specification.

This amendment adds no new matter.

**The Rejections**

Claims 7, 22 and 28 stand rejected under 35 U.S.C. § 112, second paragraph, as indefinite.

Claims 1-14, 16-22, 24-28 and 30-37 stand rejected under 35 U.S.C. § 103(a) as unpatentable over Nguyen et al. (72 J. Biotech. 115, (1999) [hereinafter “the Nguyen paper”]) in view of Browne et al. (416 Nature 38 (2002)) [hereinafter, “Browne”].

Applicants respectfully traverse the present rejections and request reconsideration and allowance of the remaining claims for the following reasons.

**Applicant’s Arguments**

*Section 112 Rejections*

Regarding the rejections under § 112, second paragraph, for reciting “ready-to-use solution,” Applicants assert that the meaning of this phrase is clear to one of skill in the art. The specification uses the phrase in the context of an example of a prepared solution containing phosphate buffer, salt, and azide preservative (page 4, lines 12-19), making clear that the term “ready-to-use solution” refers to a solution that is ready for, *e.g.*, coating of surfaces (see also page 8, lines 18-24). Thus, Applicants respectfully request reconsideration and withdrawal of the rejections under § 112, second paragraph.

*Section 103 Rejections*

The Nguyen paper teaches a protector film comprising 0.1% BSA and 5% trehalose for stabilizing proteins for immunoassay (Fig. 1). The Examiner admits that Nguyen does not teach using an LEA class protein in the stabilizing solution (Office Action dated August 23, 2006, page 3, lines 3-4). It is helpful to recognize that both the first- and last-listed authors of the Nguyen paper appear as inventors on U.S. Patent No. 5,624,831 ("Nguyen '831"), already of record, and which relates to the same subject matter as the Nguyen paper. Nguyen '831 recognizes that "agents which are effective for protecting the immunologic activity of antibodies are not effective for enzymes," and that this may be accounted for by the fact that "the enzyme is free, i.e. not immobilized on a solid support" (col. 3, lines 33-42). Thus, the Nguyen paper, directed at immunologic activity of antibodies, teaches away from combinations would not be combined with methods to protect proteins not on a solid surface.

Browne describes an LEA protein induced by desiccation (Fig. 1), and describes that sucrose glasses are stabilized *in vitro* by interaction with LEA proteins (citing Wolkers et al., of record in this application). Browne is directed at how organisms survive desiccation, and fails to teach use of LEA proteins on a surface, as required by all of the remaining claims. Moreover, contrary to the Examiner's assertion, Browne does not teach that "non-reducing sugars ad LEA protein act synergistically," but instead recites "non-reducing sugars and LEA proteins may therefore act synergistically" (emphasis added). There is no evidence in the record for any such synergism.

Where claimed subject matter has been rejected as obvious in view of a combination of prior art references, a proper analysis under § 103 requires that (1) the

prior art must suggest to those of ordinary skill in the art that they should perform the invention; and (2) the prior art must have revealed a reasonable expectation of success in performing the invention. In re Vaeck, 20 U.S.P.Q.2d 1438, 1442 (Fed. Cir. 1991). Both the suggestion and the reasonable expectation of success must be founded in the prior art, not in the applicant's disclosure. Noelle v. Lederman, 355 F.3d 1343, 1352 (Fed. Cir. 2004). The relied-upon references do not meet this burden: the references do not suggest the proposed combination and the references do not suggest that such a combination would work. In particular, one of skill in the art would not be motivated to combine the teachings of the Nguyen paper, which relate to immobilization on microtiter plates for analysis, with Browne, which teaches LEA proteins and their role in “bioglass” to aid in survival of dessication. Quite the opposite, one of skill in the art would be dissuaded from any such combination by Nguyen ‘831, which as described above teaches that “agents which are effective for protecting the immunologic activity of antibodies are not effective for enzymes” because “the enzyme is free, i.e. not immobilized on a solid support.” By making piecemeal substitutions to the combine the references for the rejection, the Examiner is exercising hindsight. See W.L. Gore & Assocs., Inc. v. Garlock, Inc. 220 U.S.P.Q. 303, 312 (Fed. Cir. 1983) (“claims were used as a frame, and individual, naked parts of the separate prior art references were employed as a mosaic”).

Thus, because there is no motivation to combine the Nguyen paper and Browne as combined in the § 103 rejection, nor any reason to expect success in the combination, Applicants respectfully traverse the rejection and request reconsideration thereof.


Conclusion

For all of the above reasons, claims 16-22, 24, 27, 28 ,30-36, and 38 are now in condition for allowance. Therefore, Applicants respectfully request reconsideration of the application and withdrawal of the rejections, and a prompt notice of allowance is earnestly solicited.

Questions are welcomed by the below-signed attorney for Applicants.

Respectfully submitted,

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